Combined Heat & Power System
At Breeden YMCA

NiSource Energy Technologies commissions Combined Heat and Power (CHP) co-gen energy system at YMCA in Angola, Indiana.

NiSource Energy Technologies has installed a CHP distributed generation system at the Breeden YMCA in Angola Indiana. CHP, also referred to as cogeneration, provides increased energy and environmental efficiency over traditional electric production. CHP systems provide customers with energy choice and flexibility. They generate heat and electricity simultaneously at the site of use and increase energy efficiency by utilizing the by-product heat created in the production of electricity for productive purposes.

The YMCA CHP system uses two 60kW microturbines and heat exchangers that use natural gas to generate electricity to the building. In addition, the system's by-product heat will supplement the heat for the facility's water supply and swimming pool and provide space heat for the YMCA.

The CHP system also provides back up power in the event of any electric grid power outage, an added advantage to help honor the YMCA's disaster center responsibilities. The CHP system's back up power feature protects critical loads keeping the YMCA open to serve its public.

Approximately 25 percent of the facility's summer electrical load and up to 70 percent of the winter load requirement will be generated by the CHP system. It is expected that the system will save the YMCA approximately 10 percent of its overall energy costs.

A 400 square foot energy building showroom for the CHP system is in an attached building. The building will allow students and visitors to easily access and view the CHP system and its computer controls. The facility was built to be used as a site for future energy conferences and provide educational sharing opportunities with Tri State University students and faculty.